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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,688	11/19/2003	Wendell J. Bouknight JR.	RSW920030238US1 (130)	6588

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EXAMINER

WHIPPLE, BRIAN P

ART UNIT	PAPER NUMBER
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2152

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/716,688	Applicant(s) BOUKNIGHT ET AL.	
	Examiner Brian P. Whipple	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-3 and 14-16 are pending in this application and presented for examination.

Response to Arguments

2. Applicant's arguments, with respect to the drawing objections, have been fully considered and are partially persuasive. The drawing objections related to the re-sizing step of claim 1 and the machine readable storage of claim 14 are withdrawn, but the Examiner fails to see how step 210 of Fig. 2 adequately shows the vary delays step of claim 2. The drawing objection is maintained for the varying delays step of claim 2.

3. Applicant's arguments, with respect to the claim objections, have been fully considered. The objection was made because the proposed change would not alter the scope of the claim in any meaningful way, but would render it easier to read for anyone reading the claim. However, Examiner agrees Applicant is not required by any statute to amend the claim language. The claim objections have been withdrawn.

4. Applicant's arguments, with respect to the 35 U.S.C. 103 rejection of claim 1, have been fully considered, but are not persuasive.

5. As to claim 1, Applicant argues the cited passage of Bakshi is directed to a single buffer and not a plurality of buffers. However, when responding to a rejection, the Applicant should consider the grounds of rejection as a whole. In response to Applicant's arguments against the

references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The grounds of rejection for claim 1 are both Bakshi and Dupont. Dupont discloses a plurality of buffers (Abstract, ln. 3-9).

Additionally, Applicant argues the Examiner improperly parses “a required percentage” from “a required percentage of times a buffer must be able to accommodate data of a particular size.” The Examiner points out that Dupont is relied upon to disclose the language, “a required percentage of times a buffer must be able to accommodate data of a particular size”, in its entirety (Col. 3, ln. 24-34).

Applicant further argues Dupont’s cited section (see the preceding paragraph) fails to disclose computing an optimal buffer size. Firstly, Examiner points out that Bakshi is relied upon to disclose this language (Col. 4, ln. 12-16). Secondly, Dupont also discloses computing an optimal buffer size (Col. 3, ln. 24-34).

Applicant argues it would not be obvious to modify Bakshi with Dupont, because Bakshi is concerned with decreasing the buffer size. Examiner recognizes this and points out that Dupont is also concerned with decreasing buffer size (Col. 4, ln. 39-43, “small packets do not have to be stored in large buffer units that could otherwise hold a data packet”). Therefore, it would have been obvious to monitor buffer size in the manner taught by Dupont as it would help Bakshi decrease the buffer size. Additionally, Bakshi’s decreasing of buffer size is in response to an overloaded state (Abstract). Therefore, ensuring efficient allocation of buffer size initially would help prevent such an overloaded state.

Applicant argues it would further not be obvious to modify Bakshi with Dupont, because Bakshi is directed to a single buffer. Regardless, the benefits of monitoring the size of this single buffer in a manner done for a plurality of buffers in Dupont is directly applicable to Bakshi for the benefits described in the preceding paragraph.

Drawings

6. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the varying delays step (see claim 2) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bakshi et al. (Bakshi), U.S. Patent No. 6,836,785 B1, in view of Dupont, U.S. Patent No. 6,843,800 B2.

9. As to claim 1, Bakshi discloses an autonomic buffer configuration method (Abstract, ln. 1-4, “variable sized buffer”) comprising the steps of:

monitoring data (Fig. 4, items 410 and 420; Col. 5, ln. 6-11, “wait for an incoming request... the process determines whether a server is in an overloaded state”) flowing through a buffer (Fig. 4, items 440, 470, and 480; Col. 5, ln. 20-29, “the process determines whether the buffer is at an acceptance limit... If the buffer is filled to the acceptance limit, then the process proceeds to step 480; otherwise, the process proceeds to step 470”) in a communications system (Fig. 1; Col. 2, ln. 25-36);

computing an optimal buffer size (Col. 4, ln. 12-16, “alter the capacity of the variable size buffer 302”) based upon a specification of a required percentage (Col. 4, ln. 12-16, “the

acceptance limit 306 can be varied between 100% and 0% in order to alter the capacity of the variable size buffer 302”); and

re-sizing said buffer (Col. 4, ln. 9-12, “variable size buffer”) without re-initializing said resized buffer (Col. 4, ln. 14-16, “the acceptance limit 306 can be varied between 100% and 0% in order to alter the capacity of the variable size buffer 302”; Col. 4, ln. 29-44 and 50-54, resizing is performed dynamically in response to the current load on the processor 300, re-initialization is not required as only requests that would push the buffer over full capacity are blocked).

Bakshi is silent on a plurality of buffers;

recording in at least one buffer profile different data sizes for different ones of said data flowing through said buffer during an established interval of time; and

the required percentage being a required percentage of times a buffer must be able to accommodate data of a particular size.

However, Dupont discloses a plurality of buffers (Abstract, ln. 3-9);

recording in at least one buffer profile different data sizes for different ones of data (Fig. 1, item 60, “Packet Monitor”; Col. 2, ln. 47-49, “monitors incoming data packets to track the size of all of the data packets and to track the frequency at which specific packet sizes are received”; Col. 2, ln. 53-55, “size frequency information may be stored in a frequency look-up table or by other suitably [sic] means”) flowing through buffers (Fig. 1; Col. 2, ln. 35-39, “packet monitor 60 monitors and stores information regarding incoming data packets at the input queues 20”) during an established interval of time (Col. 2, ln. 47-49, “track the frequency at which specific packet sizes are received”, frequency is a function of time); and

a required percentage of times a buffer must be able to accommodate data of a particular size (Col. 3, ln. 24-34, “buffer memory allocator 80 uses the packet size information obtained by the packet monitor 60 to determine the number of buffer units of each type to allocate”).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Bakshi by recording, in at least one buffer profile, different data sizes for different ones of data flowing through buffers during an established interval of time and defining a required percentage of times a buffer must be able to accommodate data of a particular size as taught by Dupont in order to efficiently allocate buffers for the storage of variable-sized data packets, for example “small packets do not have to be stored in large buffer units that could otherwise hold a data packet, and conversely, a large data packet does not have to be segmented into a plurality of smaller segments for storage in smaller buffer units” (Dupont: Col. 4, ln. 39-43).

10. As to claim 2, Bakshi and Dupont disclose the invention substantially as in parent claim 1, including said recording step (Dupont: see claim 1 above) further comprises the step of varying delays between consecutive input/output operations in said communications system (Bakshi: Col. 4, ln. 38-44; Col. 4, ln. 60-64) to affect how much data flows between said communication system and an application coupled to said communications system (Dupont: Col. 4, ln. 25-29).

11. As to claim 3, Bakshi and Dupont disclose the invention substantially as in parent claim 1, including said monitoring step (Bakshi: see claim 1 above) comprises the step of monitoring

said data for each connection in said communications system (Bakshi: Fig. 4, items 410 and 420; Col. 5, ln. 6-11, “wait for an incoming request... the process determines whether a server is in an overloaded state”; Col. 1, ln. 15-21; Col. 4, ln. 50-54).

12. As to claims 14-16, the claims are rejected for reasons similar to claims 1-3, respectively, above.

Conclusion

13. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian P. Whipple whose telephone number is (571)270-1244. The examiner can normally be reached on Mon-Fri (9:30 AM to 6:00 PM EST).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian P. Whipple
/B. P. W./
Examiner, Art Unit 2152
9/18/08

/Kenny S Lin/
Primary Examiner, Art Unit 2152